

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 11, 27 and 30-31 and Add new claims 32-36 in accordance with the following:

1. (Currently Amended) A current detection method of an inverter that converts DC input into AC output and supplies the AC output to a load, comprising:

allowing magnetic flux change occurring to a circuit wiring to act on a detecting conductor arranged in the vicinity of the circuit wiring, the magnetic flux change occurring because of a change in a circuit current due to discharge, both the detecting conductor and the circuit wiring being printed on a same side of a circuit board, the detecting conductor having a straight-line segment disposed parallel to a straight-line segment of the circuit wiring such that the magnetic flux change that occurs to the circuit wiring is allowed to act on the straight-line segment of the detecting conductor; and

detecting the change in the circuit current through the medium of the magnetic flux change by the detecting conductor.

2-10. (Canceled)

11. (Currently Amended) An anomaly detection method of an inverter that converts DC input into AC output and supplies the AC output to a load, comprising:

allowing magnetic flux change occurring to a circuit wiring to act on a detecting conductor arranged in the vicinity of the circuit wiring, the magnetic flux change occurring because of a change in a circuit current due to discharge, both the detecting conductor and the circuit wiring being printed on a same side of a circuit board, the detecting conductor having a straight-line segment disposed parallel to a straight-line segment of the circuit wiring such that the magnetic flux change that occurs to the circuit wiring is allowed to act on the straight-line segment of the detecting conductor; and

detecting the change in the circuit current through the medium of the magnetic flux

change by the detecting conductor so as to detect based on a result of the detecting of the change in the circuit current whether or not anomaly exists in a current route including the load.

12-26. (Canceled)

27. (Currently Amended) A test method using an inverter that converts DC input into AC output and supplies the AC output to a load, comprising:

allowing magnetic flux change occurring to a circuit wiring to act on a detecting conductor arranged in the vicinity of the circuit wiring, the magnetic flux change occurring because of a change in a circuit current due to discharge, both the detecting conductor and the circuit wiring being printed on a same side of a circuit board, the detecting conductor having a straight-line segment disposed parallel to a straight-line segment of the circuit wiring such that the magnetic flux change that occurs to the circuit wiring is allowed to act on the straight-line segment of the detecting conductor; and

detecting the change in the circuit current through the medium of the magnetic flux change by the detecting conductor so as to decide based on a result of the detecting of the change in the circuit current whether or not anomaly exists in a current route including the load.

28-29. (Canceled)

30. (Currently Amended) A current detection method, comprising:

allowing a magnetic flux change produced by a circuit to act on a detecting conductor located in a vicinity of the circuit, with the magnetic flux change occurring due to a change in a circuit current due to a discharge, both the detecting conductor and the circuit wiring being printed on a same side of a circuit board, the detecting conductor having a straight-line segment disposed parallel to a straight-line segment of the circuit wiring such that the magnetic flux change that occurs to the circuit wiring is allowed to act on the straight-line segment of the detecting conductor; and

detecting the change in the circuit current through the medium of the magnetic flux change on the detecting conductor.

31. (Currently Amended) A current detection method, comprising:

allowing a magnetic flux change produced by a circuit current flowing through a circuit wiring to act on a detecting conductor located in a vicinity of the circuit wiring, both the detecting

conductor and the circuit wiring being printed on a same side of a circuit board, the detecting conductor having a straight-line segment disposed parallel to a straight-line segment of the circuit wiring such that the magnetic flux change that occurs to the circuit wiring is allowed to act on the straight-line segment of the detecting conductor; and

detecting the change in the circuit current through the medium of the magnetic flux change on the detecting conductor.

32. (New) The current detection method of claim 1, further comprising:
rectifying and smoothing a current detected by the detecting conductor by acting of the magnetic flux change occurring to the circuit wiring; and
taking out a detection signal at a level representative of the change in the circuit current.

33. (New) The anomaly detection method of claim 11, further comprising:
rectifying and smoothing a current detected by the detecting conductor by acting of the magnetic flux change occurring to the circuit wiring; and
taking out a detection signal at a level representative of the change in the circuit current.

34. (New) The test method of claim 27, further comprising:
rectifying and smoothing a current detected by the detecting conductor by acting of the magnetic flux change occurring to the circuit wiring; and
taking out a detection signal at a level representative of the change in the circuit current.

35. (New) The current detection method of claim 30, further comprising:
rectifying and smoothing a current detected by the detecting conductor by acting of the magnetic flux change occurring to the circuit wiring; and
taking out a detection signal at a level representative of the change in the circuit current.

36. (New) The current detection method of claim 31, further comprising:
rectifying and smoothing a current detected by the detecting conductor by acting of the magnetic flux change occurring to the circuit wiring; and
taking out a detection signal at a level representative of the change in the circuit current.